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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,133	07/11/2003	Lixiong Li	ARA-US-PI	4427

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EXAMINER

SAVAGE, MATTHEW O

ART UNIT PAPER NUMBER

1724

DATE MAILED: 02/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

LD

**Office Action Summary**

Application No.

10/618,133

Applicant(s)

LI ET AL.

Examiner

Matthew O Savage

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-72 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-72 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-26, and 31-53, drawn to a fluid processor, classified in class 210, subclass 87.
- II. Claims 27-30, drawn to methods of sanitizing, classified in class 422, subclass 26.
- III. Claims 54-64, drawn to method of processing, classified in class 210, subclass 774.
- IV. Claims 65-72, drawn to a compact processor assembly, classified in class 165, subclass 177.

Inventions II and I together with IV are related as process and apparatuses for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatuses could be used to practice another and materially different process, for example, a process including the step of sterilization prior to shut down by circulating a disinfectant through the fluid processor.

Inventions III and I together with IV are related as process and apparatuses for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process.

(MPEP § 806.05(e)). In this case the apparatuses could be used to practice another and materially different process, for example, to purify drinking water or to produce sterile air.

Inventions I and IV are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the four part block assembly connected by bolts as shown in FIG. 5B and claimed via "means for maximizing heat transfer" as required by the subcombination. The subcombination has separate utility such as for heating or cooling a beverage.

Inventions III and II are related as combination and subcombinations. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the step of generating steam as required by the subcombinations. The subcombination has separate utility such as in a method for purifying drinking water or producing sterile air.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

1) This application includes the following species of processors:

Processors that heat the fluid, P1;

Processors that cool the fluid, P2.

2) This application discloses the following species of flow restrictors:

R1 in the form of a capillary;

R2 in the form of an adjustable valve.

3) This application includes the following species of heat exchanger arrangements:

HE1 shown in FIG. 5A, 5B;

HE2 shown in FIG. 5C;

HE3 shown in FIG. 5D;

HE4 shown in FIG. 6A, 6B;

HE5 shown in FIG. 8A-8C;

HE6 shown in FIG. 9;

HE7, the shell and tube heat exchanger, not shown in the drawings.

4) This application discloses the following species of homogenizers:

H1 shown in FIG. 5B;

H2 shown in FIG. 6A;

H3 shown in FIG. 7.

5) This application discloses the following species of treatment assemblies:

T1 shown in FIG. 12;

T2 shown in FIG. 12B;

T3 shown in FIG. 12C;

T4 shown in FIG. 12D;

T5 shown in FIG. 12F.

6) This application discloses the following species of shut down arrangements:

S1 shown in FIG. 11B including the bag 194;

S2 shown in FIG. 11B including the filter 196.

7) This application discloses the following species of sensor arrangements:

C1 including sensors placed in the product line shown in FIG. 13;

C2 including sensors placed in a discharge line not shown in the drawings;

C3 including sensors placed in a divert line not shown in the drawings.

Applicant must elect one species from each of group listed above.

This application contains claims directed to the following patentably distinct species of the claimed invention:

Claims 5, 6, 25 correspond to species R1;

Claims 7, 8, 26 correspond to species R2;

Claim 13 corresponds to species T1 and T2;

Claim 14 corresponds to species T4;

Claim 15 corresponds to species T3;

Claim 20 corresponds to species C1;

Claim 21 corresponds to species C2;

Claim 22 corresponds to species C3;

Claim 29 corresponds to species S1;

Claim 30 corresponds to species S2;

Claim 31 corresponds to HE7;

Claims 32-34 correspond to species HE1-HE6;

Claim 35 corresponds to species HE1-HE4 and species H1-H3;

Claim 36 corresponds to species HE1-HE4 and species H1;

Claim 37 corresponds to species HE1-HE4 and species H1 and H3;

Claim 38 corresponds to species HE1-HE4 and species H1-3;

Claims 39 and 40 correspond to species P2 and HE1-HE4;

Claims 41 and 44 correspond to species P2, HE1-4, and H1-H3;

Claim 42 corresponds to species P2, HE1-4, and H1;

Claim 43 corresponds to species P2, HE1-4, and H2-H3;

Claim 45 corresponds to species P1, HE5 and HE6;

Claim 46 corresponds to species P1 and HE5;

Claim 47 corresponds to species P1 and HE6;

Claim 48 corresponds to species HE2 and HE3;

Claim 49 corresponds to species HE3;

Claim 50 corresponds to species HE2;

Claims 51, 52, and 55 correspond to species HE1-6;

Claim 53 corresponds to HE4;

Claim 56 corresponds to species HE7;

Claim 57 corresponds to species P1;

Claim 58 corresponds to species P2;

Claims 65-68, and 70-72 correspond to species P1, HE1-4, H1-H3;

Claim 69 corresponds to species P2, HE1-HE4.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1-4, 9-12, 16-19, 23, 24, 27, 28, 54, and 59-64 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.



Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).


Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew O Savage whose telephone number is (571) 272-1146. The examiner can normally be reached on Monday-Friday, 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Matthew O Savage  
Primary Examiner  
Art Unit 1724

mos  
February 14, 2005